Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L5	2	Siegal frederick	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2005/04/15 16:03
L6	4	Siegal shodell	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2005/04/15 16:04
L25	116	pdc2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:14
L26	76	L25 and (HIv aids)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:16
L27	5	interferon dendritic AIDS Hiv	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2005/04/15 16:15
L28	5	pdc2.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:14
L30	628	interferon producing cell	USPAT; DERWENT	SAME	OFF	2005/04/15 16:16
L31	317	L30 and (HIv aids)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:17
L32	42	l31 and dendritic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 16:17
S1	30527	interferon$9	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:04
S2	653931	HIV or AIDS	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:05
S3	55	interferon$9 NEAR (HIV or AIDS)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:10

S4	0	Siegal NEAR frederick	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:12
S5	0	Shodell NEAR michael	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:12
S6	2	Siegal SAME shodell	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:15
S7	1258	interferon$9 WITH (HIV or AIDS)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:15
S8	613	(interferon$9 WITH (HIV or AIDS)) AND (Interferon$9 WITH cell$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:21
S9	567	(quantitation or number or measur$7 or count$5) AND ((interferon$9 WITH (HIV or AIDS)) AND (Interferon$9 WITH cell$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:25
S10	80	((quantitation or number or measur$7 or count$5) AND ((interferon$9 WITH (HIV or AIDS)) AND (Interferon$9 WITH cell$3))) and (interferon$9 WITH produci$9)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2003/11/12 15:34
S11	6	(US-4696899-$ or US-4289850-$ or US-5503828-$ or US-6350589-$ or US-5676942-$).did. or (EP-285263-$).did.	USPAT; DERWENT	OR	OFF	2005/04/15 16:16

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=> d his

     (FILE 'HOME' ENTERED AT 16:23:19 ON 15 APR 2005)

     FILE 'MEDLINE, CANCERLIT, CAPLUS, SCISEARCH' ENTERED AT 16:23:32 ON 15
     APR 2005
L1            62 S DENDRITIC (L) PDC2
L2           150 S  PDC2
L3        479450 S HIV OR AIDS
L4             8 S L2 (L) L3
L5             2 DUP REM L4 (6 DUPLICATES REMOVED)
L6            34 S L2 AND INTERFERON?
L7             4 S L6 AND L3
L8             1 DUP REM L7 (3 DUPLICATES REMOVED)
L9             8 S L2 AND L3
                 E SHODELL MICHAEL?/AU
L10            8 S E2
                 E SIEGAL FREDERICK?/AU
L11           21 S E2
L12           22 S L10 OR L11
L13            0 S L12 AND L2
L14            0 S L12 AND DENDRETIC
L15            8 S L12 AND DENDRITIC
L16            6 DUP REM L15 (2 DUPLICATES REMOVED)

=> d an ti so au ab l8

L8   ANSWER 1 OF 1     MEDLINE on STN                    DUPLICATE 1
AN   2001610067     MEDLINE
TI   Decreased interferon-alpha production in HIV-infected
     patients correlates with numerical and functional deficiencies in
     circulating type 2 dendritic cell precursors.
SO   Clinical immunology (Orlando, Fla.), (2001 Nov) 101 (2) 201-10.
     Journal code: 100883537. ISSN: 1521-6616.
AU   Feldman S; Stein D; Amrute S; Denny T; Garcia Z; Kloser P; Sun Y;
     Megjugorac N; Fitzgerald-Bocarsly P
AB   Peripheral blood mononuclear cells from patients with human
     immunodeficiency virus (HIV) infection exhibit a progressively
     marked decrease in the production of virus-induced interferon
     (IFN)-alpha, a finding that correlates with and is highly predictive of
     disease progression and opportunistic infections.  The major IFN-alpha
     producing population has recently been defined as the precursor to type 2
     dendritic cells (pDC2) or plasmacytoid DC (pDC).  Using
     four-color flow cytometry, we have enumerated the pDC2 vs
     non-IFN-alpha producing myeloid DC1 in peripheral blood from HIV
     -infected patients and healthy controls and related these values to CD4
     cell numbers, viral load, and functional activity.  The patients had
     reductions in the numbers of both pDC2 (lin-/HLA-
     DR+/CD123(bright)) and DC1 (lin1-/HLA-DR+/CD123(dim)/CD11c+), both at an
     absolute level and as a percentage of cells.  The decreases were most
     evident in patients with decreased CD4 levels.  Viral load correlated with
     the functional frequency of the IFN producing cells but not with absolute
     pDC2 levels.  Using intracellular flow cytometric analysis for
     IFN-alpha, the patients were demonstrated to have fewer pDC2, as
     well as a lower percentage of responding cells among those remaining.  We
     conclude that deficient production of IFN-alpha by pDC2 from
     HIV-infected patients results from both selective loss of these
     cells and their qualitative dysfunction.  Given the central role of DC,
     and in particular, DC2, in linking innate and adaptive immune responses,
     these qualitative and quantitative changes in pDC2 are likely to
     be key contributors to HIV pathogenesis.
     Copyright 2001 Academic Press.
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L16 ANSWER 3 OF 6 MEDLINE on STN
AN 2004644915 IN-PROCESS
TI **Dendritic** cell numbers in the blood of HIV-1 infected patients before and after changes in antiretroviral therapy.
SO Journal of clinical immunology, (2004 Nov) 24 (6) 647-52. Journal code: 8102137. ISSN: 0271-9142.
AU Finke Jennifer S; **Shodell Michael**; Shah Kokila; **Siegal Frederick P**; Steinman Ralph M
AB Antigen presenting **dendritic** cells (DCs) can serve as sites for HIV replication and as vehicles for transmission of the virus to T cells. It is known that the numbers of DCs in blood is reduced during HIV-1 infection. Here we monitored the two major subsets of blood DCs in 12 individuals undergoing a change, primarily initiation, of highly active antiretroviral therapy. The numbers of plasmacytoid DCs were reliably higher on therapy, although in the 1-3 month interval we followed, these numbers did not return to those seen in HIV uninfected controls. An increase in plasmacytoid DCs was accompanied by an increase in IFN-alpha production in response to a standard challenge in culture with UV-inactivated herpes simplex virus. The levels of myeloid DCs also demonstrated an increase while on HAART, and these numbers become comparable to the HIV uninfected controls. The numbers of plasmacytoid and myeloid DCs varied inversely with the levels of plasma HIV viremia. These longitudinal studies extend prior work showing that virus infection with HIV leads to a decrease in the number of **dendritic** cells in blood, and that this can be reversed at least in part by therapy.

L16 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:755473 CAPLUS
DN 136:273369
TI Corticosteroids depress IFN-α-producing plasmacytoid dendritic cells in human blood
SO Journal of Allergy and Clinical Immunology (2001), 108(3), 446-448
CODEN: JACIBY; ISSN: 0091-6749
AU **Shodell, Michael; Siegal, Frederick P.**
AB Glucocorticoids are strongly immunosuppressive and are associated with reactivation of some intracellular infections. The plasmacytoid dendritic cell is a rare blood mononuclear cell detected through its production of IFN-α in response to herpes simplex virus and by surface immunophenotyping. The authors report here that steroid administration results in a decrease of IFN-α generation of approx. 25-fold, accompanied by reduction in circulating plasmacytoid dendritic cell nos. Both parameters return to normal within days after steroid cessation.

L16 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:390936 CAPLUS
DN 131:169117
TI The nature of the principal type 1 interferon-producing cells in human blood
SO Science (Washington, D. C.) (1999), 284(5421), 1835-1837
CODEN: SCIEAS; ISSN: 0036-8075
AU **Siegal, Frederick P.**; Kadowaki, Norimitsu; **Shodell, Michael**; Fitzgerald-Bocarsty, Patricia A.; Shah, Kokila; Ho, Stephen; Antonenko, Svetlana; Liu, Yong-Jun
AB Interferons (IFNs) are the most important cytokines in antiviral immune responses. "Natural IFN-producing cells" (IPCs) in human blood express CD4 and major histocompatibility complex class II proteins, but have not been isolated and further characterized because of their rarity, rapid apoptosis, and lack of lineage markers. Purified IPCs are here shown to be the CD4+CD11c- type 2 **dendritic** cell precursors (pDC2s), which produce 200 to 1000 times more IFN than other blood cells after microbial challenge. PDC2s are thus an effector cell type of the immune system, critical for antiviral and antitumor immune responses.